PTRVB 4-FI /GY - Potential distributors

3270138

https://www.phoenixcontact.com/us/products/3270138

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Potential distributors, with option to supply up to 6 mm^2, nom. voltage: 250 V, nominal current: 17.5 A, connection method: Push-in connection, Rated cross section: 1.5 mm^2, cross section: 0.14 mm^2 - 2.5 mm^2, Feed-in stage, Rated cross section: 4 mm^2, cross section: 0.2 mm^2 - 6 mm^2, mounting: NS 35/7,5, NS 35/15, color: gray, color of connection elements: gray

Your advantages

- Bridgeable potential distributor with option to supply up to 6 mm²
- High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.
- Tool-free wiring in a confined space thanks to compact size

Commercial data

Item number	3270138
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE62
Product key	BE6211
Catalog page	Page 48 (C-1-2019)
GTIN	4055626355238
Weight per piece (including packing)	20.546 g
Weight per piece (excluding packing)	20.31 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Product properties

Product type	Potential distributor
Number of positions	2
Number of connections	13
Number of rows	4
Potentials	1

Insulation characteristics

Overvoltage category	III

Electrical properties

Rated surge voltage	4 kV
Maximum power dissipation for nominal condition	0.56 W

Connection data

Service Entrance	yes
Number of connections per level	4
Nominal cross section	1.5 mm²

Level 1+2+3 above 1

Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm² ... 2.5 mm²
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section, flexible [AWG]	26 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm² ... 1.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm² ... 1.5 mm²
Nominal current	17.5 A (with 1.5 mm² conductor cross section)
Maximum load current	24 A (per chamber with 2.5 mm² conductor cross section)
Maximum total current	37 A (per potential distributor)
Nominal voltage	250 V
Nominal cross section	1.5 mm²

Feed-in stage

Note	Only the “CRIMPFOX 6” crimping pliers may be used for crimping with 6 mm² stranded and ferrule.
Stripping length	10 mm ... 12 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm² ... 6 mm²
Cross section AWG	24 ... 10 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm² ... 6 mm²
Conductor cross section, flexible [AWG]	24 ... 10 (converted acc. to IEC)

Conductor cross-section flexible (ferrule without plastic sleeve)	0.2 mm² ... 6 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.2 mm² ... 6 mm²
Nominal current	32 A (Supply, for 4 mm² conductor cross section)
Maximum load current	37 A (Service Entrance)
Nominal voltage	250 V
Nominal cross section	4 mm²

Level 1+2+3 above 1 Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm² ... 2.5 mm²
Conductor cross section, rigid [AWG]	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 1.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 1.5 mm²

Feed-in stage Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm² ... 6 mm²
Conductor cross section, rigid [AWG]	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 6 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 6 mm²

Dimensions

Width	8.3 mm
Height	64 mm
Depth on NS 35/7,5	55.5 mm
Depth on NS 35/15	63 mm

Material specifications

Color	gray
Color of connection elements	gray
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed

Electrical tests

Surge voltage test

Test voltage setpoint	4.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 1.5 mm²	0.18 kA
Short-time withstand current 2.5 mm²	0.3 kA
Short-time withstand current 4 mm²	0.48 kA
Short-time withstand current 6 mm²	0.72 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.5 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes

Mechanical tests

Mechanical strength

Result	Test passed

Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.14 mm² / 0.2 kg
	1.5 mm² / 0.4 kg
	2.5 mm² / 0.7 kg
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.2 mm² / 0.2 kg
	4 mm² / 0.9 kg
	6 mm² / 1.4 kg
Result	Test passed

Environmental and real-life conditions

Aging

Temperature cycles	192
Result	Test passed

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service life test category 2, bogie-mounted
Frequency	f_1 = 5 Hz to f_2 = 250 Hz
ASD level	6.12 $(m/s^2)^2/Hz$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

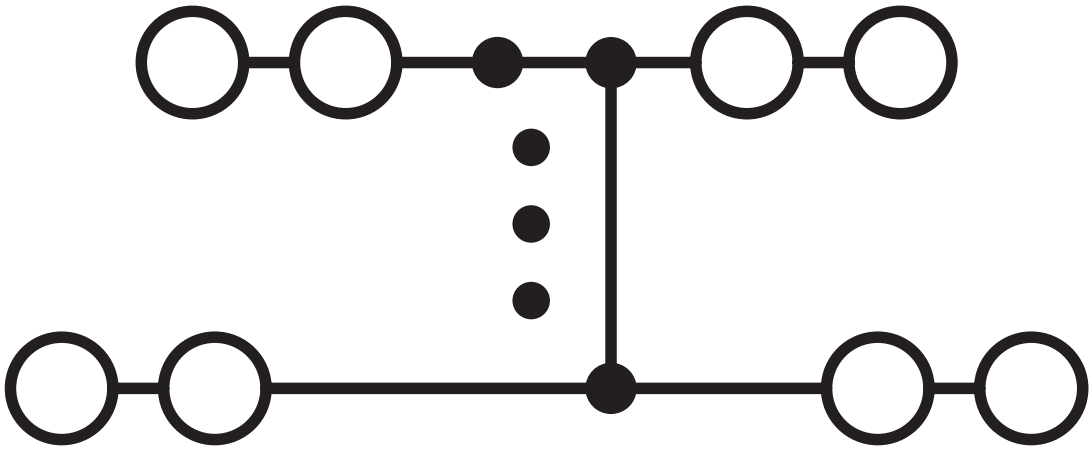
Connection in acc. with standard	IEC 60947-7-1
	IEC 60947-7-1

Mounting

Mounting type	NS 35/7,5
	NS 35/15

Drawings

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3270138

CSA
Approval ID: 2030668

Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250119

ETIM

ETIM 9.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

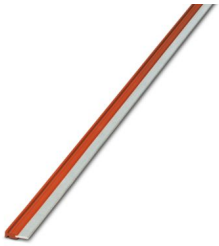
Accessories

Note: Applying some accessories below might limit this product.

FBST 500-PLC RD - Continuous plug-in bridge

2966786

https://www.phoenixcontact.com/us/products/2966786



Continuous plug-in bridge, length: 500 mm, color: red

Max. current carrying capacity: 32 A

FBST 500-PLC GY - Continuous plug-in bridge

2966838

https://www.phoenixcontact.com/us/products/2966838



Continuous plug-in bridge, length: 500 mm, color: gray

Max. current carrying capacity: 32 A

FBST 500-PLC BN - Continuous plug-in bridge

2967976

https://www.phoenixcontact.com/us/products/2967976



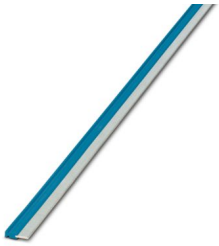
Continuous plug-in bridge, length: 500 mm, color: brown

Max. current carrying capacity: 32 A

FBST 500-PLC BU - Continuous plug-in bridge

2966692

https://www.phoenixcontact.com/us/products/2966692



Continuous plug-in bridge, length: 500 mm, color: blue

Max. current carrying capacity: 32 A

DP-PTRV 4 - Spacer plate

3270163

https://www.phoenixcontact.com/us/products/3270163



Spacer plate, depth: 54 mm, width: 8.3 mm, height: 63.6 mm, color: gray

CDC-PTRV - Retaining bracket

3270167

https://www.phoenixcontact.com/us/products/3270167



Retaining bracket, via four PTRV single modules, pitch: 8.3 mm, depth: 71.5 mm, width: 35.6 mm, height: 71.5 mm, color: gray

RPS - Reducing plug

0201647

https://www.phoenixcontact.com/us/products/0201647



Reducing plug, number of positions: 1, color: gray

FBST 50-PLC RD - Plug-in bridge

1081050

https://www.phoenixcontact.com/us/products/1081050



Plug-in bridge, length: 50 mm, color: red

FBST 50-PLC BU - Plug-in bridge

1081051

https://www.phoenixcontact.com/us/products/1081051



Plug-in bridge, length: 50 mm, color: blue

FBST 50-PLC GY - Plug-in bridge

1081053

https://www.phoenixcontact.com/us/products/1081053



Plug-in bridge, length: 50 mm, color: gray

ZB 8,3:UNBEDRUCKT - Zack marker strip

0803444

https://www.phoenixcontact.com/us/products/0803444



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 8.3 mm, lettering field size: 10.5 x 8.3 mm

ZB 8,3,LGS:FORTL.ZAHLEN - Zack marker strip

0803480

https://www.phoenixcontact.com/us/products/0803480



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 8.3 mm, lettering field size: 10.5 x 8.3 mm

ZB 8,3,QR:FORTL.ZAHLEN - Zack marker strip

0803479

https://www.phoenixcontact.com/us/products/0803479



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 8.3 mm, lettering field size: 10. 5 x 8.3 mm

ZB 8,3 CUS - Zack marker strip

8191573

https://www.phoenixcontact.com/us/products/8191573



Zack marker strip, Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 8.3 mm, lettering field size: 10.5 x 8.3 mm

TM-PTRV 4,QR:1-4 - Marker for terminal blocks

0803464

https://www.phoenixcontact.com/us/products/0803464



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

TM-PTRV 4,QR:4-1 - Marker for terminal blocks

0803465

https://www.phoenixcontact.com/us/products/0803465



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

TM-PTRV 4,QR:A-D - Marker for terminal blocks

0803466

https://www.phoenixcontact.com/us/products/0803466



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

TM-PTRV 4,QR:D-A - Marker for terminal blocks

0803467

https://www.phoenixcontact.com/us/products/0803467



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

D-PTRV 4 WH - End cover

3270151

https://www.phoenixcontact.com/us/products/3270151



End cover, depth: 48.9 mm, width: 3.8 mm, height: 63.6 mm, color: white

D-PTRV 4 WH 1-4 - End cover

3270152

https://www.phoenixcontact.com/us/products/3270152



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH 1-4 LGS - End cover

3270234

https://www.phoenixcontact.com/us/products/3270234



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH 4-1 - End cover

3270236

https://www.phoenixcontact.com/us/products/3270236



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH 4-1 LGS - End cover

3270238

https://www.phoenixcontact.com/us/products/3270238



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH A-D - End cover

3270153

https://www.phoenixcontact.com/us/products/3270153



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH A-D LGS - End cover

3270235

https://www.phoenixcontact.com/us/products/3270235



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH D-A - End cover

3270237

https://www.phoenixcontact.com/us/products/3270237



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH D-A LGS - End cover

3270239

https://www.phoenixcontact.com/us/products/3270239



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

NS 35/ 7,5 PERF 2000MM - DIN rail perforated

0801733

https://www.phoenixcontact.com/us/products/0801733



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

NS 35/ 7,5 UNPERF 2000MM - DIN rail, unperforated

0801681

https://www.phoenixcontact.com/us/products/0801681



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

NS 35/ 7,5 WH PERF 2000MM - DIN rail perforated

1204119

https://www.phoenixcontact.com/us/products/1204119



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

https://www.phoenixcontact.com/us/products/1204122



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

NS 35/ 7,5 AL UNPERF 2000MM - DIN rail, unperforated

0801704

https://www.phoenixcontact.com/us/products/0801704



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

NS 35/ 7,5 ZN PERF 2000MM - DIN rail perforated

1206421

https://www.phoenixcontact.com/us/products/1206421



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

NS 35/ 7,5 ZN UNPERF 2000MM - DIN rail, unperforated

1206434

https://www.phoenixcontact.com/us/products/1206434



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

https://www.phoenixcontact.com/us/products/0801762



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

NS 35/ 7,5 CAP - End cap

1206560

https://www.phoenixcontact.com/us/products/1206560

DIN rail end piece, for DIN rail NS 35/7.5



CLIPFIX 35 - End bracket

3022218

https://www.phoenixcontact.com/us/products/3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

CLIPFIX 35-5 - End bracket

3022276

https://www.phoenixcontact.com/us/products/3022276

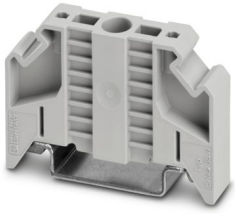


Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5. 15 mm, color: gray

E/NS 35 N - End bracket

0800886

https://www.phoenixcontact.com/us/products/0800886



End clamp, width: 9.5 mm, color: gray

E/UK - End bracket

1201442

https://www.phoenixcontact.com/us/products/1201442



End bracket, Mounting on a DIN rail NS 32 or NS 35, material: PA, color: gray

E/UK 1 - End bracket

1201413

https://www.phoenixcontact.com/us/products/1201413



End clamps, for supporting the ends of double-level and three-level terminal blocks, width: 10 mm, color: gray

MPS-MT - Test plug

0201744

https://www.phoenixcontact.com/us/products/0201744



Test plug, with solder connection up to 1 mm^2 conductor cross section, number of positions: 1, color: gray

MPS-IH WH - Insulating sleeve

0201663

https://www.phoenixcontact.com/us/products/0201663

Insulating sleeve, color: white



MPS-IH RD - Insulating sleeve

0201676

https://www.phoenixcontact.com/us/products/0201676

Insulating sleeve, color: red

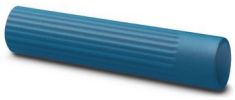


MPS-IH BU - Insulating sleeve

0201689

https://www.phoenixcontact.com/us/products/0201689

Insulating sleeve, color: blue



MPS-IH YE - Insulating sleeve

0201692

https://www.phoenixcontact.com/us/products/0201692

Insulating sleeve, color: yellow



MPS-IH GN - Insulating sleeve

0201702

https://www.phoenixcontact.com/us/products/0201702

Insulating sleeve, color: green



MPS-IH GY - Insulating sleeve

0201728

https://www.phoenixcontact.com/us/products/0201728

Insulating sleeve, color: gray



MPS-IH BK - Insulating sleeve

0201731

https://www.phoenixcontact.com/us/products/0201731

Insulating sleeve, color: black



ST-BW 0 - Actuation tool

1200135

https://www.phoenixcontact.com/us/products/1200135

Actuation tool, for all 1.5 mm^2 spring cages from PT 1,5/S and FT 1,5/S



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